



**HUMAN GENOME SCIENCES  
LEGAL DEPARTMENT**

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**FAX COVER SHEET**

DATE: November 27, 2000 Total Number Of Pages: 3  
TO: Examiner Lorraine Spector  
OF: Group 1600 - U.S. Patent and Trademark Office  
FAX NO.: 703-308-0294 PHONE NO.: 1-703-308-0196  
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Atty. Docket. No.: PF201 (U.S. Patent No. 6,030,804, Appl. No. 08/468,011)

**COMMENTS:**

Per your request, please find attached the "ribboned" and "front" pages of the issued patent for U.S. Appl. Serial No. 08/468,011.

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## The Commissioner of Patents and Trademarks

*Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.*

*Therefore, this*

## United States Patent

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*T. Todd Pichini*

Commissioner of Patents and Trademarks

*Melvinia Gary*  
Attest

United States Patent [19]  
Soppet et al.

[11] Patent Number: 6,030,804  
[45] Date of Patent: \*Feb. 29, 2000

[54] POLYNUCLEOTIDES ENCODING G-  
PROTEIN PARATHYROID HORMONE  
RECEPTOR HLTDG74 POLYPEPTIDES

[75] Inventors: Daniel R. Soppet, Centreville, Va.; Yi  
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[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: 08/468,011

[22] Filed: Jun. 6, 1995

[51] Int. Cl.<sup>7</sup> C12N 15/12; C07K 14/705

[52] U.S. Cl. 435/69.1; 435/252.3; 435/254.11;  
435/325; 435/520.1; 536/23.5; 536/24.31

[58] Field of Search 536/23.5, 24.31;  
435/69.1, 325, 252.3, 254.11, 320.1

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PUBLICATIONS

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[57] ABSTRACT

Human G-protein parathyroid hormone (PTH) receptor polypeptides and DNA (RNA) encoding such polypeptides and a procedure for producing such polypeptides by recombinant techniques is disclosed. Also disclosed are methods for utilizing such polypeptides for identifying antagonists and agonists to such polypeptides and methods of using the agonists and antagonists therapeutically to treat conditions related to the underexpression and overexpression of the PTH receptor polypeptides. Also disclosed are diagnostic methods for detecting a mutation in the PTH receptor polypeptide nucleic acid sequences and detecting a level of the soluble form of the receptors in a sample derived from a host.

26 Claims, 10 Drawing Sheets